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OLR BACKGROUNDER: REGULATORY MODEL FOR LARGE-SCALE NATURAL GAS EXPANSION PLANS

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This report describes the regulatory changes recently approved by the Public Utilities Regulatory Authority (PURA) for the natural gas distribution companies to engage in a large-scale expansion of natural gas infrastructure in Connecticut. For purposes of brevity, it contains only the major changes. For further details, see the PURA decision released November 22, 2013. For more background information on issues associated with the expansion of the gas distribution system, see the OLR Report 2012-R-0478.

SUMMARY

PA 13-298 required the three natural gas companies serving Connecticut to submit a natural gas infrastructure expansion plan to the Department of Energy and Environmental Protection's (DEEP) Bureau of Energy and Technology Policy (BETP) and PURA for review. In its review, PURA changed a number of policies pertaining to natural gas and local gas companies in its decision in Docket No. 13-06-02, *PURA Investigation of Connecticut's Local Distribution Companies' Proposed Expansion Plans to Comply with Connecticut's Comprehensive Energy Strategy*.

The decision addresses challenges identified by gas companies and regulators of converting residents and businesses from oil heating to natural gas at an accelerated pace over the next 10 years. It addresses both the cost incurred by customers converting from oil to natural gas and the cost incurred by gas companies as they expand access to natural gas. As mandated by PA 13-298, PURA's decision modifies the "hurdle rate analysis," which is used to determine whether new customers must contribute to the costs of connecting their service, to reduce conversion costs for many customers.

The decision creates new rate and recovery mechanisms to provide additional funds for the expansion. PURA also accepted the gas companies' plan to ensure adequate supply of natural gas to meet the demands of expansion, though it expressed some concern. Finally, PURA's decision requires the gas companies to develop marketing goals and report to PURA and DEEP so they can monitor the expansion.

POLICY TO EXPAND ACCESS TO NATURAL GAS

The governor's 2013 Comprehensive Energy Strategy (CES) calls for broadly expanding access to natural gas for residents and businesses across the state. The CES notes several positive impacts of switching to natural gas, including the potential for price savings on energy bills (natural gas prices are currently lower than oil prices), increased customer choice, decreased air pollution, and decreased reliance on foreign fuel.

To coordinate and plan the expansion with natural gas companies and state agencies, PA 13-298 required the three natural gas companies serving Connecticut—Southern Connecticut Gas Company (SCG), Connecticut Natural Gas Corporation (CNG), and Yankee Gas Services Company—to submit a natural gas infrastructure expansion plan to BETP and PURA for review. The companies' plan aims to convert over 280,000 customers to natural gas over 10 years, of whom roughly 85,000 are currently not on or within 150 feet of a gas main. It addresses the cost of expansion as a central obstacle and changes the method for determining portions of the cost born by new customers, current ratepayers, and the gas companies. The companies project that the expected annual rate impact on customers' bills will be less than 3% over the entire 10-year expansion.

Once it received the gas companies' plan, PURA opened a docket to review it and make a decision about implementing the gas expansion policy. In addition to the companies and BETP, parties in the PURA proceeding included the Office of Consumer Counsel, the attorney general, and Environment Northeast, among others.

PURA's decision considers and approves the gas companies' plan to secure adequate supply of natural gas to support the expansion. Finally, it addresses other challenges, including marketing to customers and ongoing monitoring requirements.

HURDLE RATE ANALYSIS

Gas companies use a "hurdle rate analysis" to determine whether the revenue collected from a new customer over a period of time will cover the initial capital investment of extending service to the customer. When expected revenue exceeds the cost, the company extends the gas line with funds from all ratepayers. Customers who wish to convert but do not pass the hurdle rate analysis pay a contribution-in-aid-of-construction (CIAC) to make up the difference between the cost and expected revenue. The CIAC can significantly increase the cost to a customer of converting to a natural gas, but it is designed to protect existing customers from subsidizing new customer additions. PURA's decision modifies the hurdle rate to potentially decrease CIAC charges and facilitate conversions at an accelerated pace.

Applicable Use

Before this decision, PURA required gas companies to use the hurdle rate analysis with all "off main" customers (i.e., those who would require an addition of a gas main in the street in order to connect and convert to natural gas). The decision instead requires the gas company to conduct a hurdle rate analysis only for those further than 150 feet from the main, as long as no obstacles, such as an intervening state highway, affect installation costs. The decision stated that this would make the administrative process of connecting a potential new residential customer more efficient and reduce the amount of a sales representatives' time when marketing service to potential new customers.

Timeframe

Gas companies use hurdle rate analyses that include estimates of future revenue. Previously, gas companies calculated the expected revenues from a new customer over 15 or 20 years (time periods varied by company). Pursuant to PA 13-298, the companies must now use a 25-year payback to calculate their ability to recover the cost. The decision states that this aligns the three gas companies and provides additional time for the companies to recover their costs, which in turn could expand the number of customers who pass the hurdle rate analysis without paying a CIAC and reduce CIAC charges for those who must pay them.

Portfolio View

PURA's decision allows companies to use a "portfolio view" of a project. A portfolio view allows companies to group multiple potential conversions into one hurdle rate analysis if the potential customers reside on one continuous gas main or if one customer has multiple locations. Individual customers who may not have passed the analysis alone may be grouped with other new customers to avoid or reduce CIAC charges. The PURA decision allows a portfolio view project to move forward when the gas company has (1) enough signed customers to secure 60% of the revenue necessary to pass the hurdle rate analysis and (2) enough prospective customers along the route of the proposed expansion to secure the remaining 40% over a three-to-five-year period. The decision states that allowing portfolio view projects should enhance efficiency and lower the cost associated with extending gas mains.

Operations and Management

PURA's decision requires gas companies to include operations and management expenditures in their hurdle rate analyses. This change aligns the three companies, as CNG and SCG already included these expenses in their analyses, while Yankee did not.

Inaccuracies

PURA's decision also shifts some of the risk of inaccuracies in the hurdle rate analysis from new customers and existing ratepayers to the gas companies. In the past, inaccuracies in the cost and revenue estimates used in these analyses resulted in new customers overpaying for main extensions or ratepayers paying for uneconomic main extensions. PURA's decision requires gas companies to submit to it (1) monthly estimates for projects necessitating hurdle rate analyses and (2) reports a year after a project has begun to receive metered gas. The company must pay any difference exceeding 20% between actual and estimated cost and revenue.

COVERING THE COST OF EXPANSION

The gas companies anticipate significant expenses from the 10-year expansion project, including infrastructure, operation, management, and other costs. PA 13-298 authorized several mechanisms for funding system expansion, which the gas companies included in their expansion plans. PURA approved these mechanisms with some modifications, reflecting its concern regarding the effect of expansion on rates for existing customers. The decision includes new rates for new customers, redirects funds earned through certain credits to the expansion, and a mechanism to reconcile any remaining costs between rate cases. The decision notes that these financing programs are still in the development or approval phase and represent a "work in progress."

New Rates for New Customers

Gas companies may offer service to customers under contracts that anticipate no interruptions (firm service) or service on an interruptible (non-firm) basis. The gas companies have five major tariffs, or price categories, for firm service customers: residential heating service, residential multi-dwelling service, small general service, medium general service, and large general service. PURA's decision requires gas companies to charge new rates to new customers that reflect their tariff plus a system expansion (SE) premium of 10% for new on-main or 30% for new off-main customers (e.g., a new on-main residential heating service (RSF) customer would pay that rate plus the 10% SE premium (RSF-SE)). The new customers must pay the applicable SE premium for 10 years.

Non-Firm Margin Credits

Non-firm margin credits (NFM) represent revenue earned by gas companies through interruptible and off-system sales. Previously, the companies returned NFM credits to customers as a credit on their bills. PURA's decision directs at least 50% of all NFM credits to offset expansion costs of plant additions. The remaining 50%, or $15 million, whichever is less, must offset costs of projects deemed to have societal benefits, such as increased employment or local economic development. Companies must book any remaining NFM credits separately as an offset to the rate base or PURA may allow the companies to use the credits to offset other costs. The decision notes that redirecting the NFM credits to offset gas expansion costs will increase gas bills for all customers.

System Expansion Reconciliation Mechanism

Given the capital-intensive nature of the expansion, the decision recognizes that gas companies may need to recover expenses outside of a rate proceeding. PURA's decision creates a System Expansion Reconciliation mechanism (SER) to allow the gas companies to reconcile gas-expansion-related revenue annually in between rate cases beginning January 1, 2014. If SE premiums and NFM credits do not offset all expansion expenses, firm customers will pay the SER as a separate line item on their bills. Companies calculate the SER by subtracting revenue requirements for business capital associated with the expansion (e.g., actual capital expenditures, current and future return on equity, and depreciation) from revenue gained through general rate revenue, SE rate revenues, and the NFM credits. Though the SER gives the companies more flexibility to make necessary purchases, the decision states that companies must still report expenditures to PURA to demonstrate that any purchases are in-service, used, and useful in order to recover costs.

Process Review Approach

PURA also requires the companies to develop a “process review approach” to reduce or control costs related to the expansion. Teams of stakeholders must review key processes within the expansion project, including defining ideal processes, pilot testing new processes, and defining methods to collect meaningful data to measure and monitor results.

RELIABILITY AND SAFETY OF SUPPLY

The decision notes that the availability of sufficient and capable resources to execute the plan was the subject of much concern by the parties in the proceeding. Specifically, it described the challenge of ensuring adequate supply of natural gas given the difficulty and uncertainty of managing gas capacity.

In their plan, the gas companies note that the limited capacity of interstate transmission lines for natural gas constrains the companies’ capacity to serve new customers. The gas companies plan to increase capacity (1) by entering long-term capacity agreements (known as precedent agreements) to purchase capacity from two interstate pipeline expansion projects, (2) through planned facility upgrades for liquefied natural gas (LNG) vaporization facilities to expand daily output, and (3) through use of existing capacity on the Iroquois Gas Transmission system that formerly served areas of New York.

Under normal circumstances, PURA has not preapproved the purchase of incremental pipeline capacity contracts. Since the legislation required the companies to create an expansion plan of the magnitude discussed in this decision, PURA approved the precedent agreements to make the expansion plan viable.

The PURA decision approves the precedent agreements identified by the gas companies, but raises concerns about their $1 billion commitment for the 15-year term of the capacity agreements. It notes that ratepayers are at-risk for all of the costs associated with the incremental capacity when it enters service in 2016. The decision requires the companies to obtain firm service contracts for at least three years with large customers in advance of procuring capacity to supply those customers.

Because this expansion program will occur at the same time as replacements of existing gas infrastructure to reduce methane leakage and improve pipeline safety, PURA directs the gas companies to give priority to replacement projects over expansion projects, if resource limitations preclude the completion of both projects.

MARKETING

The gas companies submitted marketing strategies to BETP and PURA, and, in response, the agencies are requiring the companies to develop quantified marketing results goals within the process review approach, described above. The companies must develop a cost differential calculator to assist customers considering conversion to natural gas. Additionally, PURA will permit the companies to use a credit payment of up to $250 per customer (funded through the SER) to stimulate demand.

REPORTS, MONITORING, AND RE-EVALUATION

Over the 10 years of the expansion, the decision requires the companies to submit annual reports to PURA and DEEP that include the number of customers added, comparisons of estimated and actual expenditures, forecasts of customer conversions for the following year, and any other information the agencies consider necessary. The gas companies must also submit annual reconciliation filings that include calculations of the SE rate, NFM offsets, and the SER (if needed), among other things.

The gas companies and PURA have identified future events that would impact key elements of the expansion plan, prompting a re-evaluation to identify needed changes. Re-evaluation triggers include:

1. a decline in the difference between the price of oil and natural gas by at least 50%,
2. plan expenditures increasing the overall average residential bill by at least 5% in any given year or by at least 15% over the life of the plan, or
3. 20% fewer customers converting to gas in a given time period than the number forecasted in the preceding year's review of the expansion plan.

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